

REMARKS

Applicants thank the Examiner for the very thorough consideration given the present application.

Claims 1-17 are now present in this application. Claims 1 and 10 are independent.

Amendments have been made to the Abstract of the Disclosure and specification, claims 16 and 17 have been added and claims 1, 2, 8, 10 and 13 have been amended. Reconsideration of this application, as amended, is respectfully requested.

Drawings

The Office Action indicates that the drawings are accepted by the Examiner. However, Applicants have not received a Notice of Draftsperson's Patent Drawing Review PTO-948 indicating whether or not the formal drawings have been approved by the Draftsperson. Since no objection has been received, Applicants assume that the drawings are acceptable and that no further action is necessary. Confirmation thereof in the next Office Action is respectfully requested.

Objection to the Abstract of the Disclosure

The Examiner has objected to the Abstract of the Disclosure because it may exceed 150 words.

In order to overcome this objection, Applicants have amended the Abstract of the Disclosure to reduce the number of words to 150 words or less.

Accordingly, reconsideration and withdrawal of this objection are respectfully requested.

Claim Objections

The Examiner has objected to claims 2 and 8 because of several informalities. In order to overcome this objection, Applicants have amended claims 2 and 8 in order to correct the deficiencies pointed out by the Examiner.

Reconsideration and withdrawal of this objection are respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 1-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,654,387 to Beser et al. (Beser) in view of U.S. Patent No. 6,378,000 to Akatsu et al. (Akatsu). This rejection is respectfully traversed.

A complete discussion of the Examiner's rejection is set forth in the Office

Action, and is not being repeated here.

Claim 1

While not conceding the appropriateness of the Examiner's rejection, but merely to advance prosecution of the instant application, Applicants respectfully submit that independent claim 1 has been amended to recite a combination of steps in a method of automatically mapping network addresses including associating said protocol identifier with the address corresponding to the second protocol within the table for each network element of the plurality of network elements, when the second protocol is a different protocol than the first protocol.

Applicants respectfully submit that this combination of elements as set forth in independent claim 1 is not disclosed or made obvious by the prior art of record, including Beser.

The portion of Beser referenced by the Examiner (Col.3, lines 13-15), merely provides that the method and system of Beser may provide for maintenance of a network address table such as an Address Resolution Protocol (ARP) table. However, this portion of Beser does not teach a method of mapping addresses having different protocols.

ARP (Address Resolution Protocol) is known in the art as a protocol for mapping an Internet Protocol address (IP address) to a physical machine

address that is recognized in the local network. The physical machine address is also known as a Media Access Control or MAC address. A table, usually called the ARP cache, is used to maintain a correlation between each MAC address and its corresponding IP address. ARP provides the protocol rules for making this correlation and providing address conversion in both directions. The portion of Beser cited by the Examiner (Col. 3, lines 13-15) provides for maintenance of a network address table such as an Address Resolution Protocol table (ARP).

The paragraph preceding the above referenced portion of Beser (Col.3, lines 1-12) indicates that Beser is concerned with communications between a first network device and a second network device, each apparently having a communication protocol. While the protocols of the first and second network devices may be construed as a first protocol and a second protocol, Beser does not disclose (or suggest) that the protocols in the first and second network devices are different. With regard to address mapping, there are portions of Beser which refer to IP/MAC pairs. However, as provided above, MAC is merely a physical machine address (not a protocol). Therefore, the IP/MAC pairs of Beser are not associated pairs of addresses of two different protocols.

In view of the discussion provided above, Applicants respectfully submit that the combination of elements as set forth in independent claim 1 is not

disclosed or made obvious by the prior art of record, including Beser. Akatsu cannot supply the deficiency of Beser. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

With regard to dependent claims 2-9, Applicants submit that claims 2-9 depend, either directly or indirectly, from independent claim 1, which is allowable for the reasons set forth above, and therefore claims 2-9 are allowable based on their dependence from claim 1. Reconsideration and allowance thereof are respectfully requested.

Claim 10

With regard to independent claim 10, the Examiner has asserted that this claim, and the claims that depend therefrom, do not teach or define any significantly new limitation above and beyond claims 1-9 to warrant particular treatment, and therefore are rejected for similar reasons. The Applicants respectfully disagree.

Independent claim 10 recites a combination of steps in a method of associating a network address of a network element within a SONET ring network to a second network utilizing Internet Protocol addressing, including maintaining a table in the gateway node that specifies respective Transport Identifier addresses with associated Internet Protocol addresses for each network element within the SONET ring network.

Applicants respectfully submit that no portion of Beser teaches maintaining a table in a gateway node that specifies respective Transport Identifier addresses with associated Internet Protocol addresses. As claim 10 provides, TID addresses (specific to Tl-1 protocol) are associated with IP protocol address. However, as provided in the discussion above, Beser is not directed to associating addresses having different protocols. Further, Beser makes no reference to a SONET ring network. Akatsu cannot supply the deficiency of Beser.

For the reasons set forth above, Beser, in view of Akatsu does not render claim 10 obvious to one of ordinary skill in the art. Reconsideration and withdrawal of this art grounds of rejection are respectfully requested.

With regard to dependent claims 11-15, Applicants submit that claims 11-15 depend, either directly or indirectly, from independent claim 10, which is allowable for the reasons set forth above, and therefore claims 11-15 are allowable based on their dependence from claim 10. Reconsideration and allowance thereof are respectfully requested.

Claims 16 and 17

Claims 16 and 17 have been added for the Examiner's consideration. Applicants submit that claims 16 and 17 depend, from independent claims 1 and 10 respectively, and are therefore allowable based on their dependence from

claims 1 and 10, which are believed to be allowable.

In addition, claims 16 and 17 recite further limitations which are not disclosed or made obvious by the applied prior art references.

Additional Cited References

Since the remaining references cited by the Examiner have not been utilized to reject the claims, but have merely been cited to show the state of the art, no comment need be made with respect thereto.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Percy L. Square, Registration No. 51,084, at (703) 205-8034, in the Washington, D.C. area.

Application No.: 09/784,389
Art Unit: 3002

Attorney Docket No.: 4450-0258P
Amendment filed September 17, 2004
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Prompt and favorable consideration of this Amendment is respectfully requested.


If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Abstract of the Disclosure

ABSTRACT OF THE DISCLOSURE

A system and method of automatically mapping maps network addresses of a first protocol for a plurality of network elements in a first network to network addresses of a second protocol is described. According to embodiments of the present invention a table is defined and maintained in each network element of the plurality of network elements. An identifier within the first protocol for each network element of the plurality of network elements is assigned and stored in the table. An address corresponding to the second protocol for each network element of the plurality of network elements is also assigned and stored in the table. The first protocol identifier is associated with the address corresponding to the second protocol within the table for each network element of the plurality of network elements. An update timer is further associated with each protocol identifier for each network element in the first network. The first network protocol identifier is propagated from each network element at periodic intervals. The update timer associated with each network element is reset upon propagation of a first network protocol identifier from that network element. If the update timer for that network element reaches a pre-determined count value, the network element is removed from the table.

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